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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,015	10/16/2006	Kazuyuki Kawabe	442P103	5815

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EXAMINER	
JACKSON, MONIQUE R	
ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,015	KAWABE, KAZUYUKI	
	Examiner	Art Unit	
	Monique R. Jackson	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed 12/31/08 has been entered. Claims 1-6 have been canceled. New claims 10-20 have been added. Claims 7-20 are pending in the application. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

2. Claims 7-13 and 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Isozaki et al (JP 2003-307623A.) Isozaki et al teach a polarizing plate having excellent moisture and heat resistance by forming an adhesive layer having excellent waterproof property between a polyvinylalcohol polarizing film and a cellulose acetate protective film (Abstract.) Isozaki et al teach that in producing the polyvinylalcohol polarizing film, a fixing process is performed to strengthen adsorption of the color of the film wherein boric acid and/or a boron compound are added in the treatment bath used for the fixing process (Paragraph 0026-0027.) Isozaki et al teach that the polarizing plate is produced by bonding the cellulose acetate protective film to at least one side of the polyvinylalcohol polarizing film via a layer of water-based adhesive wherein the adhesive composition comprises a polyvinylalcohol polymer, an inorganic layered compound, and a crosslinking agent in an amount of preferably 0.5% to 50% by weight, based upon the weight of the polymer and the crosslinking agent in the adhesive (*reads upon the claimed weight ratio of the crosslinking agent*), in order to further increase the water resistance properties of the adhesive (Abstract; Paragraphs 0030-0045.) Isozaki et al teach that the polyvinylalcohol polymer of the adhesive composition is preferably a modified polyvinylalcohol in order to increase moisture resistance under elevated temperatures and high humidity of the polarizing plate (Paragraph 0031.) Isozaki et al teach that the polyvinylalcohol resin is

preferably modified by copolymerization of an alpha olefin, such as ethylene, propylene, butene or isobutene (*isobutylene*) wherein an additional monomer can also be copolymerized with the alpha olefin such as maleic anhydride (*reads upon a modified polyvinyl alcohol resin as well as a resin having a maleic anhydride skeleton in the structure, more particularly a copolymer of maleic anhydride and isobutylene, and hence meets any weight ratio*); wherein the degree of polymerization of the polymer is preferably 100-3000 (Paragraphs 0031-0033; *reads upon claimed molecular weight.*) Isozaki et al also teach that suitable crosslinking agents include epoxy compounds (Paragraph 0042.)

Claim Rejections - 35 USC § 103

3. In the event the Applicant takes the position that one skilled in the art would not clearly envisage the adhesive resin of Isozaki et al having a maleic anhydride skeleton given the recitation of other comonomers by Isozaki et al, Claims 7-13 and 15-20 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Isozaki et al. The teachings of Isozaki et al are discussed above and though the Examiner takes the position that a resin having a maleic anhydride skeleton is clearly disclosed and envisaged by Isozaki et al, the Examiner also contends that selection of any of the comonomers taught by Isozaki et al would have been obvious to one having ordinary skill in the art at the time of the invention, particularly given the limited number of exemplified comonomers including isobutylene and maleic anhydride. Further, though the Examiner has taken the position above that the same modified polyvinylalcohol resin copolymerized with these monomers reads upon both resins of the claimed invention, namely the "polyvinyl alcohol resin" and the "resin having a maleic anhydride skeleton in the structure", it would also have been obvious to one having ordinary skill

in the art at the time of the invention to utilize any of the disclosed polyvinyl alcohol polymers taught by Isozaki et al or mixtures thereof in the adhesive layer, given the reasonable expectation of success.

4. Claims 7-13 and 15-20 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Isozaki et al for the reasons recited above, and in further view of EP'136, in the event the Applicant requires the adhesive to comprise two separate resins. The teachings of Isozaki et al are discussed above and though Isozaki et al teach that the adhesive composition can comprise a modified polyvinylalcohol resin, including one copolymerized with isobutylene and maleic anhydride, Isozaki et al do not specifically teach an adhesive composition comprising a polyvinyl alcohol resin and a separate, different resin comprising isobutylene/maleic anhydride copolymer. However, EP'136 teach that by incorporating a water-insoluble and alkali-soluble/swellable resin such as a copolymer of olefin monomers and carboxylic-group monomers, and more specifically a copolymer of isobutylene with maleic anhydride, into a water-based polyvinylalcohol adhesive composition, improved water resistance of the resulting adhesive can be obtained. Therefore, one having ordinary skill in the art at the time of the invention would have been motivated to further incorporate a separate water-insoluble copolymer of isobutylene and maleic anhydride into the water-based adhesive composition taught by Isozaki et al to further improve the water resistance of the adhesive layer as taught by EP'136.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Isozaki et al in view of Suda et al (JP 2005-049779A) or Tanaka et al (USPN 6,905,640) or the admitted prior art. The teachings of Isozaki et al are discussed above. Though Isozaki et al broadly teach that the polarizing film can be dyed with potassium iodide and treated with a boric acid and/or boron

compound in order to strengthen adsorption of the color, Isozaki et al do not specifically teach the content of boron or boric acid in the polyvinyl alcohol film. However, it is well established in the art that the amount of boric acid is a result-effective variable wherein the degree of fixing depends upon the amount of boric acid in the film. Hence, it would have been obvious to one having ordinary skill in the art to utilize routine experimentation to determine the amount of boric acid in the polarizing film to provide the desired fixing properties for a particular end use wherein amounts within the claimed range are typical and obvious in the art, such as the 200-400kg/m^3 as taught by Suda et al (Abstract), or the 5-40wt% as taught by Tanaka et al (Col. 4, lines 8-37) or the 13-25wt% as found in conventional, commercially available polarizing films as admitted by the Applicant (Page 5, lines and Page 12, line 28-Page 13, line 2.)

Response to Arguments

6. Applicant's arguments filed 12/31/08 have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R. Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 10:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Monique R Jackson/
Primary Examiner, Art Unit 1794
March 4, 2009